Effects of Restricted Public Funding for Legal Abortions: A Second Look

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Abstract: At hospitals in three cities where public funding for legal abortions had been restricted, we reviewed the records of women with complications of all types of abortions. We compared the number of complications in the year before funding restriction with the number in the following year, during restriction. For complications of illegal and spontaneous abortions, we found no significant change in either the number or proportion of publicly funded hospitalizations. For complications of legal abortions, we found a decrease in both the number and proportion of publicly funded hospitalizations. For poor women, it appears that restriction of public funding for legal abortions has not markedly increased the number of illegal abortions, but has reduced the number of legal abortions, especially those at later gestational ages, which would have cost more and been at greater risk of complications. (*Am J Public Health* 1981; 71:77-81.)

Introduction

After August 4, 1977, the federal government and most state governments restricted public funding for legal abortions to specified circumstances, e.g., those in which pregnancy endangers the life of the woman, results from rape or incest, or might result in long-lasting physical harm.[1] In the states which restricted funding, poor women with unwanted pregnancies had four options: they could seek and qualify for publicly funded legal abortions under allowable circumstances; they could use private funds to obtain legal abortions; they could use private funds to obtain illegal abortions (induced by non-physicians); or they could continue the unwanted pregnancy.[1]

Having to rely on private funds to obtain a legal abortion would be associated with an increased risk of complications if it substantially delayed the abortion until the necessary funds could be obtained[2]; illegal abortions presumably involve greater risk than legal abortions[3]; and childbirth is more dangerous than legal abortion performed earlier than 16 menstrual weeks of gestation.[4] For these reasons, we[5] and others[6] had predicted that the funding restriction would result in increased morbidity and mortality to low-income women.

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In a previous study on the health impact of the funding restriction, we identified no measurable increase in complications of illegal abortions.[7] In addition, a comparison of the Medicaid-funded percentages of hospitalizations for abortion complications before and during the funding restriction showed no significant change over time. However, we did find evidence suggesting that medically indigent women were delaying legal abortions as a result of the funding restrictions and were thus facing increased risk because of later gestational age at abortion. We did not look at the effect on the numbers of legal abortions or obstetric deliveries.

That study had several methodologic limitations. First, the time intervals compared were generally of unequal length, and varied from three to nine months depending on the hospital. Hence, these allowed comparisons of only the publicly funded percentages, but not the numbers of hospitalizations, and may have been too short a time to detect a relatively small change. Second, some "non-funded" hospitals used city or county funds to provide publicly funded abortions, despite the absence of state funds. This would have counteracted the effects of restricting public funds for abortion at the state and federal levels. Third, each hospital was the only one in its city that we surveyed, so we may not have detected abortion complications in women who went to other hospitals in the same city. Fourth, our case definition included any abortion complication for which a patient came to a hospital emergency room. This broad definition may have included so many truly spontaneous abortions that any increase in illegal abortions disguised as spontaneous could have been diluted to the point where we could not measure it. Because of these difficulties, we designed a new study.

Methods

Our objective was to determine whether changes in the number and proportion of publicly funded hospitalizations for women with complications of abortions could be attributed to changes in factors other than public funding for legal abortions. We used four criteria to select cities which restricted public funding: 1) they were in states that had restricted funding for legal abortions in a manner similar to the federal restriction; 2) city and county funds for legal abortion were similarly restricted; 3) despite some abortion providers who offered discounts to poor women, every woman had to pay at least $75 for a legal abortion in those cities; and 4) at least 1,500 legal abortions were publicly funded in each of these cities in the year before the restriction of funding.*

*Based on unpublished data from the Alan Guttmacher Institute.

Using these criteria, we selected Cleveland and Columbus, Ohio, and Dallas, Texas. Each was paired in analysis with a similar city, where public funding for legal abortions had not been restricted. We selected Pittsburgh, Pennsylvania, Lansing, Michigan, and Denver, Colorado, for the group which had no restrictions.

We selected all hospitals in each city with the following characteristics which we thought would lead poor women to come to them for treatment of abortion complications: 1) they were acute care hospitals with emergency rooms; 2) they were not limited to participants in a prepaid group practice plan or to members of the uniformed services; and 3) they each had more than 1,000 obstetric deliveries per year.[9] Participating in the study were six of the seven hospitals selected in Cleveland, five of the six in Columbus, all six in Dallas, three of six in Denver, all three in Lansing, and three of five in Pittsburgh. None of those hospitals which chose not to participate were public facilities; the main reasons for non-participation were lack of staff to retrieve medical records and desire to maintain institutional confidentiality.

To find cases, we reviewed the hospital records of all patients with abortion complications, identified by using discharge diagnosis codes from hospital modifications of the International Classification of Diseases.[10,11] In each institution, we verified the consistency in diagnostic and coding standards between both study intervals. However, we were unable to evaluate whether individual variation of interpretation may have differed between the study intervals.

Case Definitions

Because we could not directly determine the number of illegal abortions, we relied on an indirect measure—the number of patients with illegal abortion complications. We defined an illegal abortion complication as any woman hospitalized for an abortion which the woman stated was self-induced or induced by a non-physician, or in which the physician found physical evidence of clandestine intervention.

Some ostensibly spontaneous abortions might actually have been illegally induced, despite no physical evidence of intervention. Because we assumed that illegal abortions disguised as "spontaneous" would more likely result in severe complications than would truly spontaneous abortions, we tried to give more weight to the former by confining our investigation to only the more severe complications. Thus, we defined a spontaneous abortion complication as one which required hospitalization of the woman and involved infection with a fever of at least 100.4° F (38° C), hemorrhage treated with transfusion, or trauma treated with abdominal surgery. We used the same criteria for legal abortion complications as we did for spontaneous, confining our case definition to the more severe complications requiring hospitalization of the woman.

Time Period for Study

The time intervals we selected for comparison consisted of a 12-month interval before the restriction of funding (July 1, 1976–June 30, 1977) and a 12-month interval during the restriction (October 1, 1977–September 30, 1978). By making each interval one year long, we avoided differences due to seasonal variations. Because the intervals were of equal length, the number of abortion complications (and not just the publicly funded proportions) could be compared. In addition, we determined the number of complications per month from July 1, 1976 through September 30, 1978 to identify the secular trend in relation to the funding restriction.

Results

We found very few women who had had illegal abortion complications either before or during the period of restricted funding. The number increased in Cleveland, Columbus, and Dallas from two before restriction to five during restriction (Table 1). Before restriction, neither of the two hospitalizations was publicly funded, but during restriction two of the five were publicly funded. This increase was not statistically significant. Nevertheless, according to their medical records, the two women who were eligible for public funding of hospitalization said they attempted to abort themselves because of their inability to afford the expense of a legal abortion. We found no illegal abortions in Denver, Lansing, or Pittsburgh, in either time interval.

The number and proportion of publicly funded hospitalizations of women with spontaneous abortion complications increased slightly more (from 19 per cent to 29 per cent) in the cities where public funding for legal abortions was *not* restricted than it did in the cities where funding *was* restricted (from 21 per cent to 29 per cent); neither increase was significant.

We found a significant decrease in the number and proportion of publicly funded hospitalizations of women with legal abortion complications: from 19 (38 per cent) to two (6 per cent) in the cities which restricted funding (Table 2). We also found a significant decrease in the number and percentage of nulliparous women among those with legal abortion complications.

The decrease in the number of publicly funded hospitalizations for women with complications of legal abortions was temporally related to the funding restriction (Figure 1). The number of hospitalizations not publicly funded did not similarly decrease. In cities where funding for abortions was not restricted, neither funding category of hospitalizations had a decreasing trend (Figure 2).

For medically indigent women who had legal abortions with severe complications the mean gestational age decreased during restriction of funding, as compared with before, though not significantly (Table 3). Our only significant finding regarding gestational age was that it tended to be greater in poor women than in non-poor, regardless of restriction of funding for legal abortions.

Discussion

We did not find a significant increase in either the number or proportion of publicly funded hospitalizations of women who had complications of illegal or spontaneous

TABLE 1—Characteristics of Women Hospitalized with Illegal Abortion Complications before and during Restriction of Public Funding of Legal Abortions

	Date of Hospitalization	Hospitalization Publicly Funded?	City	Age	Race	Marital Status	Parity	Menstrual Weeks' Gestation	Complication
Before Restriction									
	12/ 4/76	No	Dallas, TX	22	Black	Married	2	8	Hemorrhage
	3/ 4/77	No	Dallas, TX	23	White	Married	0	Unknown	Infection
During Restriction									
	10/20/77	No	Dallas, TX	15	Black	Single	0	13	Hemorrhage and infection
	11/12/77	Unknown	Columbus, OH	25	White	Divorced	0	7	Infection
	3/10/78	Yes	Cleveland, OH	21	Black	Single	4	12	Turpentine ingestion
	5/ 8/78	No	Dallas, TX	33	White	Married	2	16	Infection
	9/16/78	Yes	Cleveland, OH	21	Black	Single	3	19	Infection

TABLE 2—Characteristics of Women Hospitalized with Legal Abortion Complications, before and during Restriction of Public Funding for Legal Abortions

	Per Cent of Hospitalizations			
	Cities[1] in States Which Restricted Funding		Cities[2] in States Which Did Not Restrict Funding	
Characteristic	Interval A[3]: before Restriction (n = 50)	Interval B[4]: during Restriction (n = 33)	Interval A[3] (n = 53)	Interval B[4] (n = 48)
Funding Status of Hospitalization				
Public	38	6	40	38
Not Public	60	91	60	62
Unknown	2	3	0	0
Total	100**	100	100	100
Age				
≤19	40	24	34	29
20–24	36	28	34	46
≥25	24	39	32	25
Unknown	0	9	0	0
Total	100	100	100	100
Race				
White	46	70	68	63
Black	44	21	24	31
Hispanic	4	6	2	6
Unknown	6	3	6	0
Total	100	100	100	100
Marital Status				
Married	16	33	28	13
Unmarried	84	67	72	87
Total	100	100	100	100
Parity				
0	44	15	57	50
1–3	48	73	34	42
≥4	8	12	9	8
Total	100*	100	100	100

[1]Cleveland, Ohio; Columbus, Ohio; Dallas, Texas.
[2]Denver, Colorado; Lansing, Michigan; Pittsburgh, Pennsylvania.
[3]7/1/76–6/30/77
[4]10/1/77–9/30/78
*$p < 0.05$, chi square test
**$p < 0.01$, chi square test

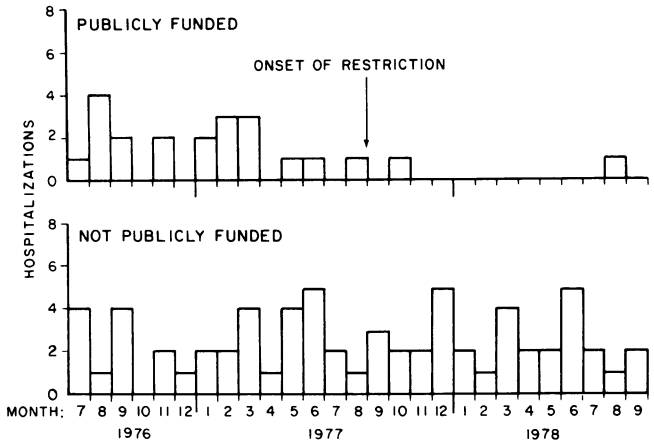

FIGURE 1—Hospitalizations Associated with Legal Abortion Complications in Cities with Restriction of Public Funds for Legal Abortions

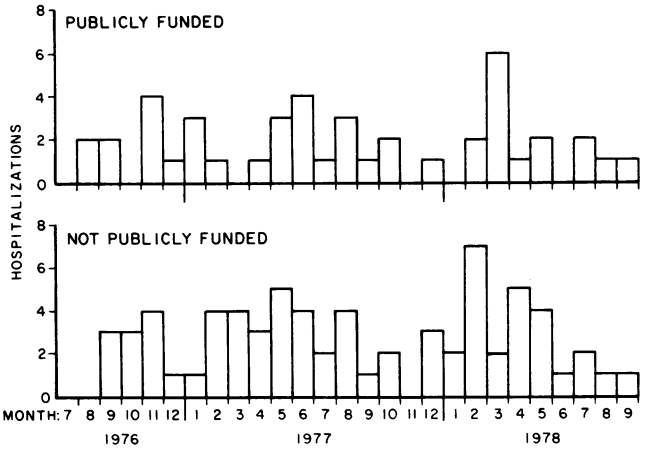

FIGURE 2—Hospitalizations Associated with Legal Abortion Complications in Cities without Restriction of Public Funds for Legal Abortions

abortions. Assuming that the complication rate for illegal and spontaneous abortions remained constant and that the hospitalization rate for complications did not change, we infer that the restriction of public funding for legal abortions has not led to a large increase in the number of illegal abortions (including those disguised as spontaneous) for women poor enough to be eligible for public funding of medical care. As their hospital records reported, however, some low-income women are resorting to illegal abortion because of the absence of funds. The latter finding is consistent with the finding of four women who died in 1977 and 1978 from illegal abortions attributable to lack of funds, identified through the nationwide abortion mortality surveillance by the Center for Disease Control.[12]

The significant decrease in the number and proportion of publicly funded hospitalizations of women who had legal abortion complications suggests that poor women are not obtaining as many legal abortions during the funding restriction as they did previously. If this drop in the number of legal abortions cannot be explained by a rise in the number of illegal or spontaneous abortions, then poor women are either experiencing a decrease in their pregnancy rates or, more likely, are continuing pregnancies to childbirth which they would not have done if public funding had been available. This is consistent with the findings of others that poor women are having fewer legal abortions.[13,14]

Any study focusing on the number of complications rather than directly on the number of abortions is biased toward selecting abortions at higher risk of complications, such as those at greater gestational age.[2] In both the current and the previous studies,[7] therefore, the mean gestational ages are probably higher than the mean gestational age for abortions without complication.[13] This bias is greater in the current study than in the previous one, because we selected the more severe, hospitalized complications. As a result of this greater bias, in each comparison group of the current study the mean gestational age was several weeks greater than the corresponding group of the previous study.

If, as suggested above, our findings for legal abortions mainly reflect those at higher risk of complications, such as those in the second trimester, this would explain why we found such a marked drop in the number of legal abortion complications for poor women. Poor women would probably be unable to pay for second-trimester abortions, because they are generally much more expensive than first trimester procedures.[15]

Extrapolating from complication rates for later procedures,[2] we estimate that a reduction from 19 to two major complications would be equivalent to a reduction of about 850 second-trimester abortions in those cities with restricted funding. If abortions at all gestations were equally affected, the reduction in complications would correspond to a reduction of approximately 2,100 procedures. Current data do not permit us to evaluate whether these projections are supported by the actual number of legal abortions performed on low-income women in these cities.

Our current study could not confirm the finding of the previous study that the mean gestational age at legal abortion was one to two weeks greater for women eligible for public funding of hospitalization.[7] Although not significant, the decrease we found in the mean gestational age is consistent with the greater decrease in the number of second-trimester abortions for poor women than in first trimester abortions.

If, as we hypothesize, the restriction of public funds primarily affects second-trimester legal abortions, it would especially affect those women who tend to delay obtaining abortions until the second trimester—nulliparous, unmarried, teenagers.[16] Consistent with this, we found decreases in the percentages of women with legal abortion complications who were nulliparous, unmarried, and teenage in cities where funding was restricted, but the decrease was significant only for the percentage of women who were nulliparous. We might also expect a corresponding increase in the percentages of women having publicly funded obstetric deliveries who are nulliparous, unmarried, and teenage.

Our findings may not be valid for other parts of the country. In some places, for example, poor women might be more inclined to seek illegal abortions than to continue their unwanted pregnancies to birth.[17] Conversely, they might have access to enough private funds to allow them to obtain

TABLE 3—Mean Gestational Age[1] at Legal Abortion, by Funding Status of Hospitalization, before and during Restriction of Public Funding for Legal Abortions

Funding Status of Hospitalization	Cities in States Which Restricted Funding		Cities in States Which Did Not Restrict Funding	
	Interval A: before Restriction	Interval B: during Restriction	Interval A	Interval B
Public	15.6* (14.1, 17.2)	14.5 (11.5, 17.5)	15.1* (13.0, 17.2)	16.0* (14.2, 17.9)
Not Public	13.2 (12.1, 14.3)	13.1 (11.8, 14.4)	11.9 (10.4, 13.4)	11.1 (9.5, 12.7)

[1]Mean gestational age in weeks since onset of last menstrual period. Parentheses enclose the 95% confidence interval. Cases with unknown gestational age were excluded from the calculation.

*Significantly greater than the mean gestational age for hospitalizations not publicly funded, in the same cities and *same* time interval, ($p < 0.02$, Student *t* test).

legal abortions in the same numbers as before the restriction of public fundings.

In conclusion, this study supports our previous finding that restriction of public funding for legal abortions has not resulted in a sizeable increase in the number of illegal abortions. In addition, it shows a significant decrease in the number of legal abortion complications, perhaps reflecting a decrease in the number of second-trimester abortions for poor women.

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